

METHOD OF URL-BASED POWER MANAGEMENT AND ASSOCIATED WEB BROWSING DEVICE

Abstract

A web browsing device includes a CPU having a plurality of frequency or voltage settings, a storage device storing a prediction table listing predicted frequency or voltage settings of the CPU for a plurality of web pages organized by universal resource locator (URL), and a power manager. The power manager sets the frequency or voltage setting of the CPU when opening a web page. If the URL of the web page is listed in the prediction table, the power manager sets the frequency or voltage of the CPU to the predicted frequency or voltage setting for the web page listed in the prediction table. If the URL of the web page is not listed in the prediction table, the power manager sets the frequency or voltage setting of the CPU to a default value. The power manager tracks the CPU workload while processing the web page, calculates an optimal frequency or voltage setting for the CPU based on the web page workload, and updates the prediction table to reflect the optimal frequency or voltage setting.